

IN THE CLAIMS

1. A device for joining a first body vessel to a second body vessel, comprising:
  - a) a cartridge having a distal end and defining a longitudinal axis;
  - b) a radially expandable anchor disposed at the distal end of the cartridge for engaging the first body vessel, the expandable anchor having an initial condition and an expanded condition wherein the expandable anchor is radially larger than the expandable anchor in the initial condition; and
  - c) a plurality of sutures disposed within the cartridge and being deployable therefrom so as to engage the second body vessel, the sutures being threaded through the expandable anchor.
2. The device of claim 1, wherein the expandable anchor comprises a plurality of flexible arms biased in an expanded position.
- 15 3. The device of claim 1, wherein the cartridge comprises an inner member and an outer member having a lumen dimensioned to receive the inner member, the sutures being disposed in channels formed in the inner member.
4. The device of claim 1, wherein the anchor has a central passage and the sutures extend through the expandable anchor and proximally through the central passage.
- 20 5. The device of claim 3, wherein the expandable anchor is disposed between the inner member and the outer member.

6. The device of claim 1, wherein the sutures have distal ends and needle anchors attached to the distal ends, the needle ends being deployable from the cartridge.
- 5 7. The device of claim 3, further comprising a ring disposed within the outer member for securing the sutures to the expandable anchor.
8. The device of claim 1, wherein the expandable anchor comprises a plurality of holes, each of the holes receiving one of the sutures.
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9. The device of claim 3, wherein the expandable anchor comprises a plurality of arms connected by members.
10. The device of claim 9, wherein the inner member includes a ring having connection features for engaging the arms.
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11. The device of claim 10, wherein the ring, expandable anchor and members are sized so that when the ring engages the arms, the members are broken and the arms remain attached to the ring.
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12. The device of claim 11, wherein the inner member has a tapered distal end.
13. A device for joining a first body vessel to a second body vessel, comprising:

- a) a cartridge having a distal end and defining a longitudinal axis;
  - b) an anchor disposed at the distal end of the cartridge for engaging the first body vessel; and
  - c) a plurality of sutures disposed within the cartridge and being deployable therefrom so as to engage the second body vessel, the sutures being threaded through the anchor.
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14. The device of claim 13, wherein the anchor comprises a plurality of outwardly extending arms.

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15. The device of claim 14, wherein the cartridge comprises an inner member and an outer member having a lumen dimensioned to receive the inner member, the sutures being disposed in channels formed in the inner member.

15 16. The device of claim 15, wherein the outer member and anchor are sized so that the anchor is disposed along the longitudinal axis within the outer member.

17. The device of claim 13, wherein the anchor has a central passage and the sutures extend through the anchor and proximally through the central passage.

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18. The device of claim 13, wherein the sutures have distal ends and needle anchors attached to the distal ends, the needle ends being deployable from the cartridge.

19. The device of claim 15, further comprising a ring disposed within the outer member for securing the sutures to the expandable anchor.
20. The device of claim 13, wherein the anchor comprises a plurality of holes, each of  
5 the holes receiving one of the sutures.